USGS

WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2006AL47B

Title: Investigating the Role of Surface-Groundwater Interactions on Surface Water Quality

Project Type: Research

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End Date: 02/28/2007

Congressional District: Third

Focus Categories: Surface Water, Groundwater, Solute Transport

Keywords: Contaminant transport, Solute Transport, Pollutants, Water Quality, Streams, Open Channels, Groundwater Quality

Principal Investigators: Kazezyilmaz-Alhan, Cevza Melek; Clement, Prabhakar T.

Federal Funds: $25,000

Non-Federal Matching Funds: $50,000

Abstract: This project is designed to use two experiments to analyze the contaminant exchange between surface and ground water. The first is designed to measure the lateral path of a contaminant plume as it interacts between surface and ground water along the flow path. The second is designed to predict the vertical path of a contaminant plume as it interacts between surface water and the subsurface water beneath it. The experimental results will enhance physical-chemical understanding of the concentration distribution in surface water and ground water. The outcome of this project will help understand the transient hebavior of contaminants in zones between the open channel and the aquifer and therefore the change in pollutant loads in surface waters that will affect the water quality in river basins.

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